

Lesson 8-1 • Group 2

Reinforce Understanding

8.1 Small Group • Group 2

I can write an equation for a real situation and check whether a given value is a solution by substituting it, explain what each part stands for, and build one for a situation I have not seen before.

Worked model

Jade wrote the equation $m + 23 = 41$ for a number puzzle. Is $m = 18$ a solution?

1. Substitute: replace m with 18. The equation becomes $18 + 23 = 41$.
2. Do the arithmetic on the left side: $18 + 23$ makes 41.
3. Compare the two sides: 41 and 41. Both sides balance.
4. The equation is true, so $m = 18$ is a solution.

Answer: Yes — $m = 18$ makes both sides equal 41, so it is a solution.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. For each situation, identify what the variable represents and write the equation.

Complete the table. Show how you found each value.

Situation	Variable Represents	Equation
A box holds some files. After removing 5, there are 13 left.		
A detective split 48 photos equally into folders. Each folder has 6 photos.		

Show your work

2. Build the equation $2n + 3 = 11$ on the balance scale and find n .

Decide whether each pair balances. Check Yes or No, then explain.

	Left side		Right side	Balanced?
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Explain your choice